

SUPPORT FOR THE AMENDMENT

Claim 1 has been amended to incorporate claim 2. Claim 1 has been further amended to specify that the differential thermogravimetric peaks of the material of the invention are separate (See Figure 6 of the present application). Also, claims 1, 3 and 5 have been amended to include the limitation that the (surface area after treatment) : (surface area before treatment) ratio of the graphite material is consistently larger than 1 (See Figure 4; Table 1 to Table 6, on the ninth column of each table). Claim 8 has been amended to claim a range of (percentage of weight reduction as measured by DTG) : (specific surface area) between 1 and 38. No new matter has been added.

REMARKS

Claims 1, 3-5, 8 and 10 are pending and under consideration in the application. Claims 2, 6, 7, 11-14 have been cancelled. Claims 15 - 46 stand withdrawn.

The objection to the amendment filed 7/20/04 under 35 U.S.C. 132 has been obviated by the above amendment to the specification which reestablishes the disclosure as originally filed.

The objection to claim 2 because of informalities is now moot in view of the cancellation of that claim. Claim 5 has been amended to correct informalities as requested by the Examiner.

The rejection of claim 8 under 35 U.S.C. 112, second paragraph, has been obviated by appropriate amendment to the claim. The claim is now drawn to a range of the ratio (percentage of weight reduction as measured on the DTG): (specific surface area) of the graphite in the negative electrode. The claim as presently amended is enabled by the experimental data reported in Tables 1 to 6, on the third and seventh columns of each table, respectively.

The rejection of claims 1, 3-6 and 9-11 under 35 U.S.C. 102(b) as being unpatentable in view of Hayashi et al. (Japanese Patent 10-334915) is respectfully traversed. Hayashi et al. does not disclose the subject matter of the claims as presently amended, because a material having two distinct carbon materials does not inherently provide at least two separate peaks on a differential thermogravimetric curve. The

material of the present invention has a graphite crystalline structure inside the particle as a base material and an amorphous random structure on the surface as coating material (See page 9, last line, to page 10, first paragraph). As shown in Figure 6, said material also exhibits two separate peaks in its differential thermogravimetric curve (DTG).

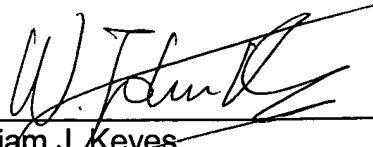
However, not all materials comprising crystalline carbon and amorphous carbon exhibit this type of DTG. Yoon et al. (US Pat. No. 6,482,547), for example, teaches materials comprising a crystalline carbon and amorphous carbon (See col. 3, line 66 to col. 4, line 1; col. 4, lines 36-41). Nevertheless, the peaks on the DTG are not separated, but rather overlap to form shoulders (See col. 6, lines 37-40; Figure 4). Consequently, a material having two different carbon materials does not inherently provide two separate DTG peaks.

In addition, the material disclosed by Hayashi et al. is characterized by a (surface area after treatment) : (surface area before treatment) ratio that is consistently less than 1 (See Table 4). In Example 13, said ratio is $8.9/19.1=0.466$; in example 14, $2.52/4.8=0.525$; in example 15, $4.20/8.7=0.483$; in example 16, $3.0/4.5=0.667$. This contrasts with the requirement for a ratio that is greater than 1 for the materials of the present invention as set forth in the presently amended claims (See also Figure 4; Table 1 to Table 6, on the ninth column of each table of the present application). Accordingly, it is respectfully submitted that Hayashi et al. does not anticipate the claimed materials.

The rejection of claims 1, 2 and 8 under 35 U.S.C. 103(a) in view of Yoon et al. is also respectfully traversed. As detailed above, the material of the present invention and that taught by Yoon et al. are characterized by different DTG profiles. In view of these different properties, Applicants respectfully submit that claims 1, 2 and 8 are not obvious in light of the cited reference and that the rejection should be removed.

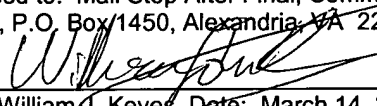
Applicants submit that claims 1, 3-5, 8 and 10 are patentable and that the present application is now in condition for allowance. Notice to that effect is respectfully requested.

Respectfully submitted,



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